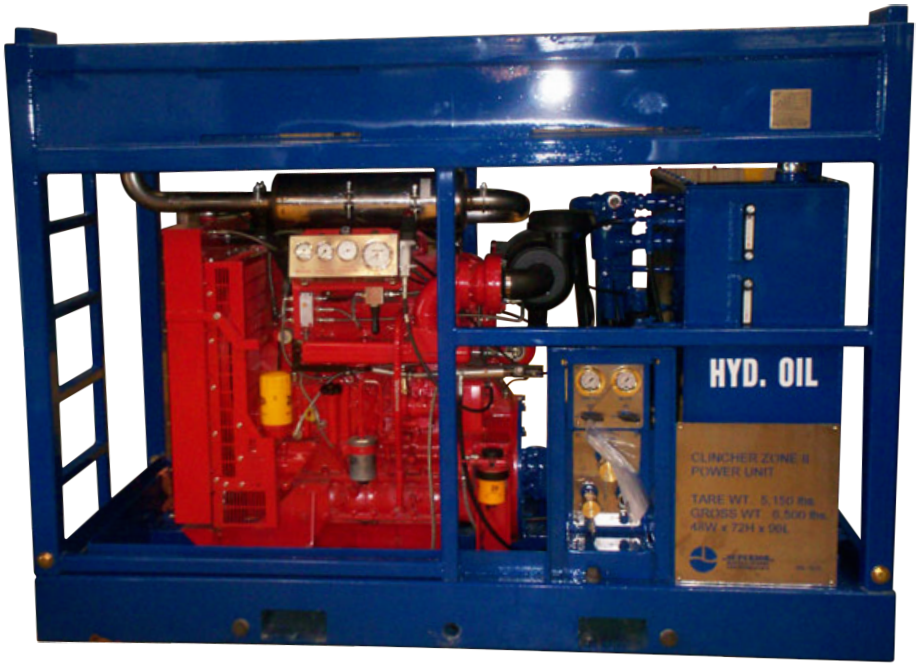
SUPERIOR
Manufacturing & Hydraulics

TECHNICAL MANUAL

DIESEL DRIVEN ZONE II HYDRAULIC POWER UNIT



MODEL NUMBER DPU444-01
70 HP, 4 CYL., 60 GPM, 3000 PSI
WITH HIGH/LOW GEAR PUMP

4225 Highway 90, East
Broussard, Louisiana 70518
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www.superior-manf.com

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The products described in this manual are covered by U.S. and foreign Patents and/or pending Patent Applications.

This manual is not a controlled document and is subject to revision without notice. To receive updates and insure you have access to the latest information concerning the SUPERIOR Power Unit, we request you complete this form and return the lower half to SUPERIOR Manufacturing and Hydraulics by mail or facsimile.

Name: _____
Company: _____
Address: _____
Address: _____
City: _____ **State:** _____
Postal Code: _____ **Country:** _____
Telephone: _____ **Fax:** _____

Power Unit Model No.: _____ **Serial No.:** _____
Assembly Date: _____

SUPERIOR Power Unit Technical Manual Registration Form

Name: _____
Company: _____
Address: _____
Address: _____
City: _____
Postal Code: _____ **Country:** _____
Telephone: _____ **Fax:** _____

Power Unit Model No.: _____ **Serial No.:** _____
Assembly Date: _____

Return To:

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SUPERIOR DIESEL DRIVEN HYDRAULIC POWER UNIT

REVISION TABLE

Section	*Page*	*Date*	*Description*
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SUPERIOR Diesel Driven Hydraulic Power Unit

HAZARD WARNING

Nomenclature used in this manual:

WARNING concerns an operating procedure or practice that, if not strictly observed, can result in injury to personnel or loss of life.

Caution concerns an operating procedure or practice that, if not strictly observed, can result in damage to or destruction of equipment.

Note concerns an operating procedure or practice that needs highlighting.

WARNING: Hydraulic Power Unit must be maintained and ope rated by trained personnel. Personnel with diminished physical or mental capacity must not operate this equipment.

SUPERIOR Hydraulic Power Units utilize high pressure hydraulic fluids. Portions of the unit, control valves, hydraulic lines and cylinders may contain high pressure fluid even when the Power Unit is de -energized and the fluid supply hoses are disconnected. During normal operation the temperature of the hydraulic fluids as well as hoses, piping, valves, etc., can rise to a level which can cause burns.

WARNING: Personal protective gear including safety glasses, face shields, protective gloves and protective clothing must be worn to guard against the hazards of high pressure fluids. Tight fitting clothing is required to prevent entanglement in rotating components. These units should be serviced by thoroughly trained and qualified hydraulic technicians using procedures to safely insure hydraulic pressure is bled from these circuits.

No attempt should be made to operate the SUPERIOR Hydraulic Power Unit for any purpose other than which it is intended.

HYDRAULIC PRODUCT SAFETY

WARNING: Valve lever (spool) may "stick" (not center) under certain conditions allowing the hydraulic equipment to continue to operate and could cause serious injury, death or equipment failure.

VALVE SAFETY: Read and follow instructions carefully. Failure to observe instructions and guidelines may cause serious injury, death or equipment failure. A sticking valve (spool bind) may be caused by one or more of the following factors:

DIRTY OIL: Oil must be filtered to a minimum of 25 microns. Filters should be changed regularly - spin-on types after 50 hours of initial use and then after every two hundred fifty hours of use. Use of a condition indicator is recommended. Consult your tractor or implement owner's manual for filtration and changing recommendations for internal systems.

OIL REQUIREMENTS: Premium quality anti-wear type oil with a viscosity between 100 and 200 SSU at operating temperatures. Certain synthetic oils may cause spool seals to swell and the valve to stick. If in doubt, call CROSS Engineering.

IMPROPER HOOK UP OR MOUNTING: Always use the proper size fittings. Hook up "in" & "out" as noted on the valve body. Do not overtorque pipe fittings. Mounting surfaces should be flat and care should be used when tightening mounting bolts. Over-tightened bolts can cause spool bind and casting breakage. When hooking a valve in series, always use a power beyond sleeve. Consult your tractor or implement manual to make sure you have the proper quick disconnect line connected to the inlet of the remote valve.

MISAPPLICATION: Always use the proper valve for the job. CONVERTA, CD, CS or CA valves should never be used for metered heavy load lifting - loaders or similar applications. Use an open center valve for open center applications and a closed center valve for closed applications. If in doubt, check with your tractor dealer. Contact CROSS if the valve allows the hydraulic equipment to creep excessively.

MAINTENANCE: Make sure all bolts are tightened and torqued to the recommended specification. Bent or broken parts should not be used. Replace immediately. Always use exact replacements. Always protect valve spool from paint overspray.

Faulty quick disconnects can cause high back pressures and sticking spools. Check quick disconnects periodically to make sure they are functioning properly. If valve spool does not center or appears to stick, do not use!

PUMPS & MOTORS SAFETY:

A relief or bypass in your hydraulic system is necessary to prevent pump from breakage due to overpressurization. Use correct fittings and proper oil as noted in the technical service manual packed with each unit. Change oil as recommended by your implement or tractor manufacturer.

CYLINDER SAFETY:

Check clevis clearances before, during and after extending the cylinder and before using the cylinder under pressure to avoid possible injury, or bent or broken rods caused by binding. Never operate a cylinder above recommended pressures. Never use a cylinder as a safety device when transporting equipment.

PINHOLE LEAKS:

If you observe a pinhole leak, discontinue use of the component. If oil has penetrated your skin or contacted your eye, seek medical attention immediately!

DESCRIPTION

Superior Manufacturing & Hydraulics Power Units can be used to run many types of hydraulic tools. They are most frequently used to run hydraulic power tongs and backups.

The DPU444-01 is a diesel driven hydraulic power unit. It uses a 4 cylinder JCB 444 engine which has been modified to operate in a Zone II environment. The engine is capable of delivering up to 70 HP @ 1800 RPM (See manufacturing literature for engine technical information.) The engine drives a dual gear pump with an integral high/low valve. The pump can deliver 60 GPM at pressures up to 1500 psi (low pressure, high flow). From 1500 psi to 3000 psi the pump will deliver 30 GPM (high pressure, low flow).

The hydraulic reservoir will hold 140 US gallons of premium hydraulic oil (ISO 68 recommended). The diesel tank will hold 50 US gallons of diesel. Other items in the unit include a system relief valve, return filter and gauge control panel. The entire system is mounted on a skid with a detachable crash frame which incorporates a hose basket for easy transportation.

SPECIFICATIONS

Diesel Engine / JCB 444	70 HP @ 1800 RPM
Maximum Flow / Pressure	60 GPM @ 1500 PSI 30 GPM @ 3000 PSI
Dimensions	96” L x 48” W x 72" H
Weight (with filled fluid reservoirs)	6500 lbs. / 2948 kg
Hydraulic Oil Capacity	140 US Gal. / 530 L
Diesel Capacity	50 US Gal. / 189 L

DET NORSKE VERITAS

DNV Order No.: PRJC-236263-2010-PRC-USA
P.O. No..: 02-2009/PVDWS/TUBULAR

SURVEY REPORT

Report No.: PRJC-236263-2010-PRC-USA-01

Equipment Description: **EPU4060 AND DPU444**	Client: Superior Manufacturing and Hydraulics

Date: 2010-08-11	Project No: PRJC-236263-2010-PRC-USA
Prepared: Jacob Thumberger	Unit Ref.: ZNAUS 155
Applicant: Superior Manufacturing and Hydraulics	HOU TEAM Ref.: 70005135
Address: 4225 Highway 90 East Broussard, LA 70515, USA	Tel: 337-837-8847
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Contact: Thomas Carver	Email: TCarver@mccoyglobal.com
Contact Persons Phone: 337-837-8847	Fax: 337-837-8839
Alternate Contact:	Email:

PROJECT INFORMATION

End User:	PETROVIETNAM Drilling & Well Services Corporation. Floor 10th, Sailing Tower, 111A Pasteur District 1 Ho Chi Minh City, Vietnam
Equipment:	EPU4060 and DPU444
Intended for:	Zone 1 (EPU6040) and Zone 2 (DPU444) Hazardous Locations
Regulations/Codes/Standards:	ATEX Directive (94/9/EC) / API RP 500
Drawings/Procedures:	EPU7560/EPU75001 (for the EPU4060) and DPU444-01 (for the DPU444)
Acceptance Criteria:	All components suitable for use the their indended hazardous location when installed according to their manufacturer and/or certification requirements

Original to Client
Copy to file
Copy to :

Place: Houston, TX-USA
Date: 8-13-10

JACOB THUMBERGER
Surveyors name (Capital Letters)

Jacob Thumberger
Surveyors signature

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In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as its subsidaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.

SURVEY REPORT

Report No.: PRJC-236263-2010-PRC-USA-01

Equipment Description: **EPU4060 AND DPU444**	Client: Superior Manufacturing and Hydraulics

FINDINGS / RESULTS

The below listed equipment has been subjected to a documentation review of manufacturer and 3rd party certifications, to assess the suitability for use in Hazardous Area Zones (1 or 2) as defined by API RP 500.

Evaluation of the EPU4060 as suitable for use in Zone 1 Hazardous Locations

The EPU4060 consists of a 75HP electric motor, motor starter, 1/2HP oil cooler fan, electric pushbutton switches, and a hydraulic pump with 150 gallon hydraulic reservoir.

Brook Crompton Electric Motor

The electric motor is a Brook Cromton W-EF250SN and is certified by Baseefa (BAS02ATEX2115X) as follows:

Ⓔx II 2 G Ex de IIB T3

See the Baseefa certificate listed above for a complete list of the special conditions that apply to the safe use of this motor.

F.E.A.M. S.p.A Motor Starter Enclosure

The motor starter enclosure is a F.E.A.M. S.p.A EJB series enclosure and is certified by BKI (BKI 08 ATEX 019) as follows:

Ⓔx II 2 GD Ex d IIB+H2 T6….T3

There are no special conditions for safe use of this enclosure.

Cemp International S.p.A. Oil Cooler Fan

The motor for the oil cooler fan is a Cemp International S.p.A. AC series motor and is certified by CESI (CESI 01 ATEX 103) as follows:

Ⓔx II 2 G EEx d IIC T6, T5, T4, T3

There are no special conditions for safe use of this fan motor.

Equipment Description: **EPU4060 AND DPU444**	Client: Superior Manufacturing and Hydraulics

Appleton Pushbutton Switches

The Appleton pushbutton switches/enclosures used to start/stop the motor are part numbers EDSC271, ED25K2, ED2SK1, UCPB1GE, UCPB1RE and UCPBM1RE. These switches are UL listed for use in Class I, Zone 1 locations. However, the certificates for these components were not able to be obtained for DNV review, so no statement can be made regarding the suitability of these components for use in Zone 1 locations.

GearTek Hydraulic Pump

The hydraulic pump is a GearTek GNSH20-20 that bears the following marking:

II 2 GD g T3

The manufacturer lists various installation, operation, and safety considerations in GearTek document GT9453.

Conclusion – All equipment in the EPU4060 must be used and installed within the guidelines and requirements of its certification. The EPU4060 is suitable for use in Zone 1 locations with group IIB gases and a temperature code of T3 when installed according to the manufacturer's specifications and certification requirements. See the Appleton Pushbutton section above regarding some uncertainty regarding the acceptability of these switches.

Evaluation of the DPU444 as suitable for use in Zone 2 Hazardous Locations

The DPU444 consists of a diesel engine with 50 gallon diesel tank and a hydraulic pump with 140 gallon hydraulic reservoir. A bulkhead assembly allows for connection from the DPU to other equipment.

Power Torque Diesel Engine

The diesel engine is declared by the manufacturer as suitable to be marked as follows:

3G IIA T3

The engine has the following condition of use: "This equipment must not be operated until it has been incorporated into relevant CE marked machinery, which is itself declared to be in conformity with ATEX directive 94/9/EC and the requirements of the Machinery Directive 2006/42/EC".

Equipment Description: **EPU4060 AND DPU444**	Client: Superior Manufacturing and Hydraulics

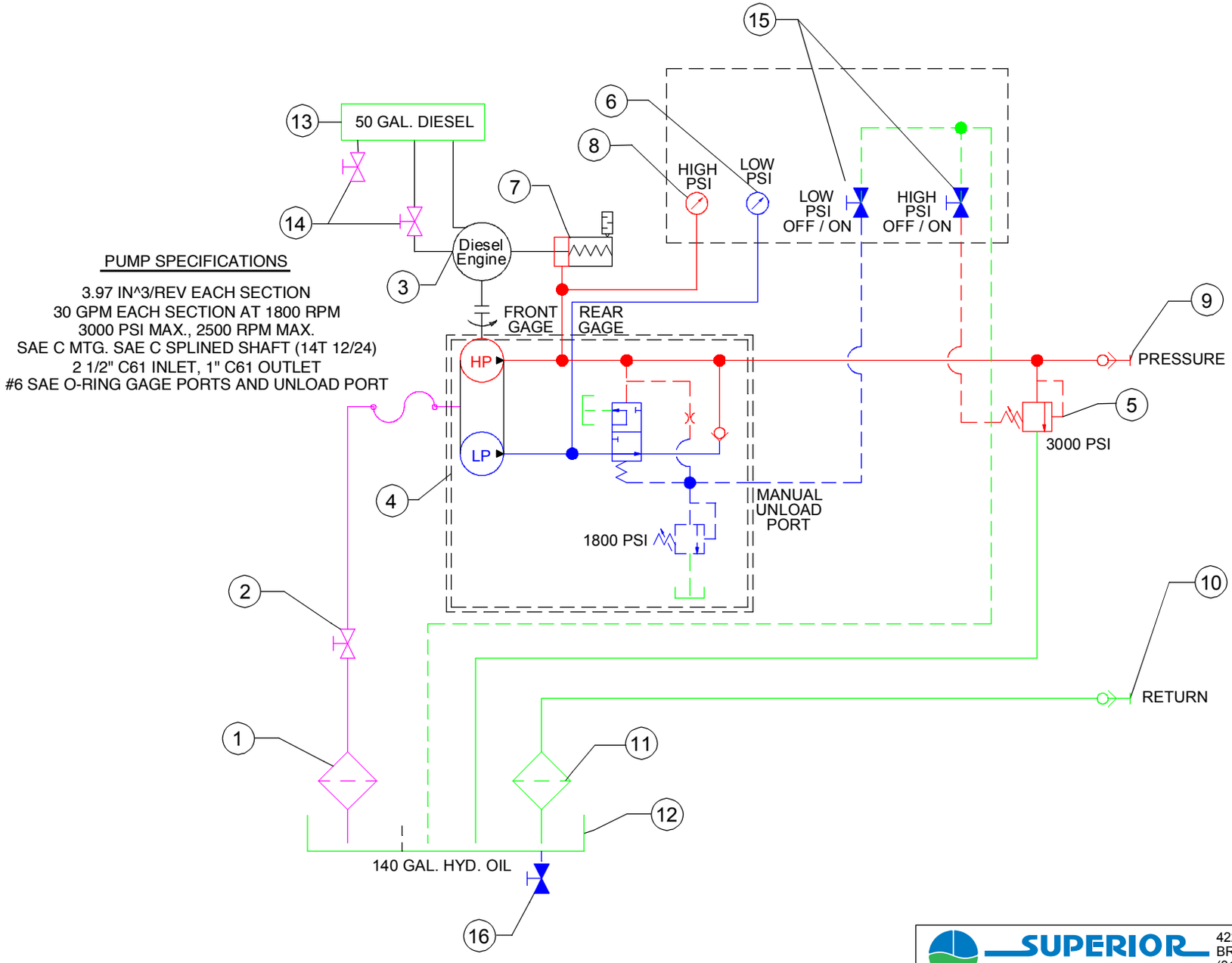
GearTek Hydraulic Pump

The hydraulic pump is a GearTek GNSH20-20 that bears the following marking:

Ⓔx II 2 GD g T3

The manufacturer lists various installation, operation, and safety considerations in GearTek document GT9453 which must be complied with.

Conclusion – All equipment in the DPU444 must be used and installed within the guidelines and requirements of its certification. The DPU444 is suitable for use in Zone 2 locations with group IIA gases and a temperature code of T3 when installed according to the manufacturer's specifications and certification requirements.



HYDRAULIC SCHEMATIC

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REV. #	LOG #	DATE
		2/26/10

HYDRAULIC SCHEMATIC			
BILL OF MATERIALS			
Item	***Quantity***	***Part Number***	***Description***
1	1	2.5 STRAINER	Suction Strainer
2	1	1458	Suction Ball Valve, 2 1/2" NPT
3	1	JCB444NA	Diesel Engine with Pump Drive (modified for Zone II operation)
4	1	EPU75014	Dual Gear Pump with Hi / Lo Valve
5	1	2070	System Relief Valve
6	1	BAC-3M25RCFF	Pressure Gauge, 0-3000
7	1	DPU44020	Throttle Assembly
8	1	BAC-5M25RCFF	Pressure Gauge, 0-5000
9	1	1441	1" Quick Disconnect – Male
10	1	1446	1 1/4" Quick Disconnect – Male
11	1	DPU660-S1	Return Filter
12	1	HRES-140A	Reservoir, 140 Gallons
13	1	DT-50G-A	Diesel Tank 50 Gallon
14	3	1478	3/8" Ball Valve, NPT, Low PSI
15	2	1508	1/4" Stainless Ball Valve, High PSI
16	1	V500P12	¾” Low Pressure Brass Ball Valve

OPERATIONAL INSTRUCTIONS

HYDRAULIC POWER UNIT
STARTUP CHECKLIST

1. Hydraulic oil level OK
2. Diesel oil level OK
3. Engine oil level OK
4. Suction valve is open
5. Connect return hose to HPU and Tong
6. Connect pressure hose to HPU and Tong
7. Connect air line
8. Position High and Low PSI switches to “OFF”
9. Position Diesel Engine Shut Down valve to Run position
10. Push air shut valve and idle for 5 minutes
11. Position High and Low PSI switches to “ON” to operate tong.

MAINTENANCE INSTRUCTIONS

Superior recommends that owners of Hydraulic Power Unit and accessories adapt a regularly scheduled maintenance program. Implementation of this type of program offers several benefits. First you increase the life of your equipment, secondly, you may find a problem before it escalates to a costly repair or down time on the job, and most importantly, prevent injury to operating personnel.

A major inspection should be carried out if equipment is suspected to have been damaged during transit or is to be mobilized to a remote location where maintenance operations are difficult to carry out.

Routine Maintenance

Cleaning:

A) Pre-wash unit to remove majority of dirt and grease build up as to allow inspection of overall condition of unit.

B) Clean and inspect for damage or excessive wear (cracks, breakage, and uneven wear patterns).

C) Inspect all hoses for wear, replace as necessary.

D) While maintaining pressure visually inspect hoses, stainless steel lines, fittings, etc., for seepage of hydraulic fluid. Repair or replace parts causing leaks.

E) Test. Re-inspect hydraulic system for leaks.

F) Replace return filter elements every 6 months or as required.

G) Sample oil for contamination every 6 months, replace as required.

TROUBLE SHOOTING

HYDRAULIC SYSTEM

Hydraulic Pump Making Excessive Noise:

	Problem	Solution
A)	Restricted or clogged intake line	Clean line, check for contamination.
B)	Contaminated fluid	Flush system, change fluid.
C)	Restricted vent	Clean or replace air vent.
D)	Air in fluid	Check for leaks and be certain fluid suction in tank is well below hydraulic fluid in reservoir.
E)	Damaged or worn parts	Repair or replace dam aged parts, check fluid for contamination.
F)	Excessive RPM	Check PTO, gears, and recommended speed to assure proper pump is installed for operation.
G)	Increased friction	Make sure pump has been assembled using correct torque valves.
H)	Damaged or worn relief valve.	Replace relief valve.
I)	Damaged or worn check valve.	Replace check valve.
J)	Restricted discharge	Check to make sure relief valve is set to proper pressure.
K)	Valve system restricted	Inspect and repair or replace defective parts, check system for contamination.

Excessive Wear to Hydraulic Components:

	Problem	Solution
A)	Fluid contamination	Flush fluid system, replace with new fluid.
B)	Components misaligned	Inspect and realign.
C)	High operating pressures	Gauge and set to proper pressure.
D)	Exhausted fluid (depletion of additives)	Flush fluid system, replace with new fluid.
E)	Air in fluid	Check for leaks, and be certain fluid suction in tank is well below hydraulic fluid in reservoir.
F)	Shortened bearing life	Check alignment, insure proper lubrication to non-sealed bearings.

SECTION 6 PARTS LISTS

DPU444-01 Diesel Driven Hydraulic Zone II Power Unit

70 HP, 40 GPM, 3,000 PSI Power Unit with High/Low Gear Pump

Description	*Manufacturer*	*Model Number*
140 Gallon Hydraulic Reservoir	Superior	HRES-140A
70 HP Diesel Engine with Pump Drive	JCB	JCB444NA
50 Gallon Diesel Tank	Superior	DT-50G-A
Double Gear Pump with Integral High/Low Valve	Geartek	Superior P/N EPU75014
Suction Strainer	Flow-Ezy	Superior P/N 2.5 STRAINER
Relief Valve	Denison	Superior P/N 2070
Return Filter	Schroeder	Superior P/N DPU660-S1
Throttle Cylinder Assembly	Superior	DPU44020

Note: Standard industrial hydraulic system components including hydraulic hoses, pipe fittings, and low pressure suction isolation valve components are not specifically identified.

Note: This Power Unit features a dual gear pump with an integral high/low valve. The pump will deliver a maximum of 60 gpm below pressures of 1500 psi. Above 1500 psi, the flow is decreased as not to overdraw the diesel engine. The maximum relief valve setting is set to 3000 psi.

Hyd HP = (max flow (gpm) x max pressure (psi)) / 1714

RECOMMENDED SPARE PARTS LIST

Part Number	***Quantity***	***Description***
EPU75014	1	Dual Gear Pump
KZ25	2	Filter Elements
2.5 STRAINER	1	Suction Strainer
1441	1	1" Male Quick Disconnect
1440	1	1" Female Quick Disconnect
1446	1	1-1/4" Male Quick Disconnect
1445	1	1-1/4" Female Quick Disconnect

SECTION 7 POWER UNIT ILLUSTRATIONS

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DPU444-01 / DIESEL POWER UNIT ILLUSTRATION (Sht.2) ..... 7 – 4
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- HYDRAULIC PUMP / PHOTO 3 ..... 7 - 7
- THROTTLE CYLINDER / PHOTO 4 ..... 7 - 7
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THROTTLE ASSEMBLY *(Assembly No. DPU44020)* ..... 7 – 10
RESERVOIR TANK ASSEMBLY *(Assembly No. HRES-140A)* ..... 7 – 11
DIESEL TANK ASSEMBLY *(Assembly No. DT-50G-A)* ..... 7 – 11

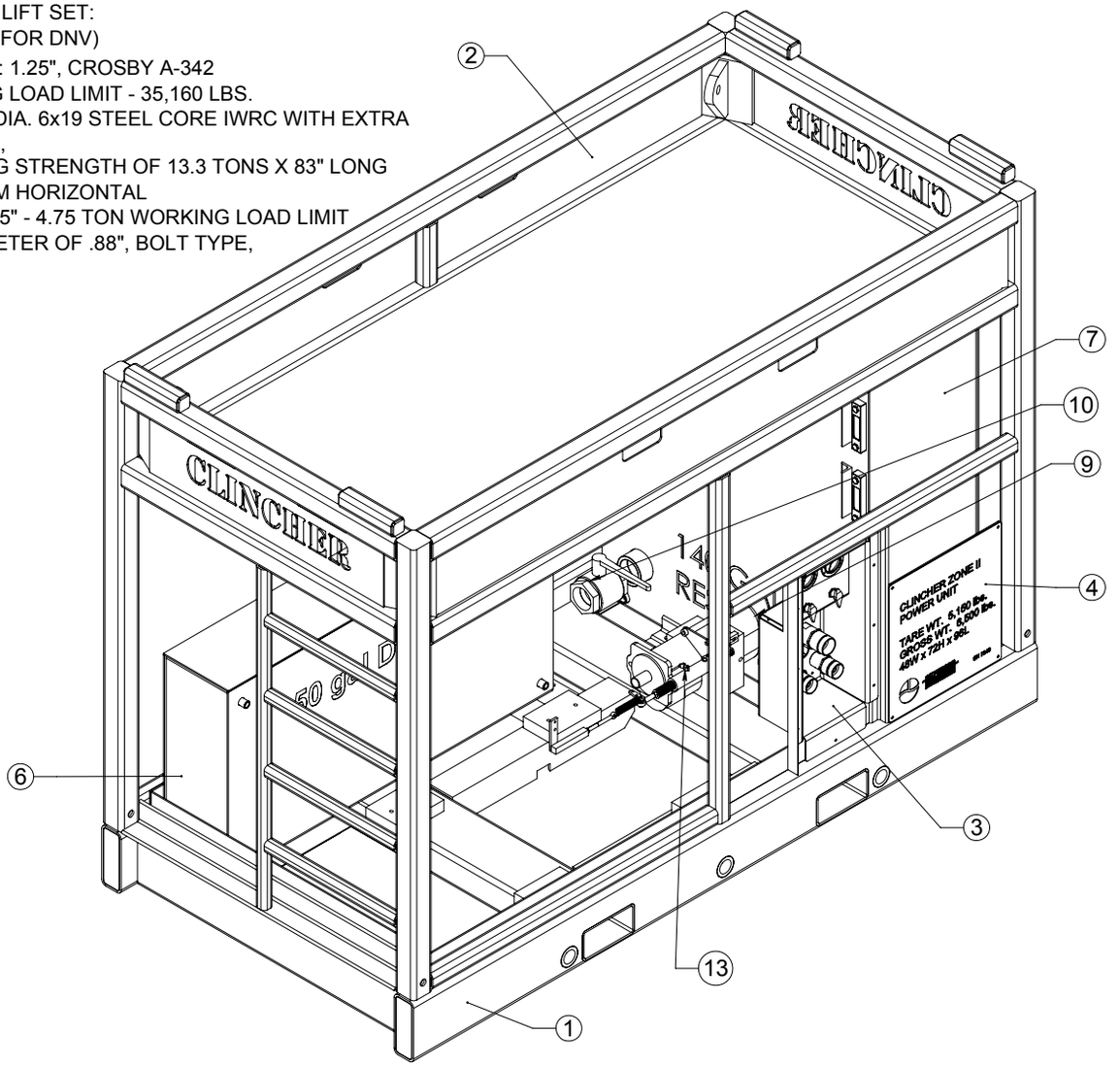
Item #	Qty.	Part Number	Part Name
1	1	DPU44001-01	Z2 DIESEL POWER UNIT SKID WELDMENT
2	1	DPU44002-01	Z2 DIESEL POWER UNIT CAGE
3	1	DPU44006-01	BULKHEAD ASSEMBLY
4	1	DPU44014	INFO. PLATE
5	1	DPU44015	EXHAUST MOUNTING BRACKET
6	1	DT-50G	DIESEL TANK - 50 GALLONS
7	1	HRES-140	HYDRAULIC RESERVOIR - 140 GALLONS
8	1	DPU660-S1	RETURN FILTER
9	1	GNSH20-20	DOUBLE GEAR PUMP W/ HI/LOW VALVE
10	1	1458	SUCTION BALL VALVE, 2 1/2" NPT
11	1	JCB444NA	DIESEL ENGINE
12	1	2070	DUMP VALVE 1 1/4"
13	1	7040HL-011	REPLACE MODEL WITH 7040HL-011

RECOMMENDED LIFT SET:
(NOT CERTIFIED FOR DNV)

(1) MASTER LINK: 1.25", CROSBY A-342
WORKING LOAD LIMIT - 35,160 LBS.

(4) CABLE: .500" DIA. 6x19 STEEL CORE IWRC WITH EXTRA HEAVY THIMBLE,
BREAKING STRENGTH OF 13.3 TONS X 83" LONG
60° FROM HORIZONTAL

(4) SHACKLES: .75" - 4.75 TON WORKING LOAD LIMIT
PIN DIAMETER OF .88", BOLT TYPE,
CROSBY



DIESEL ZONE II POWER UNIT ILLUSTRATION

Sheet 1

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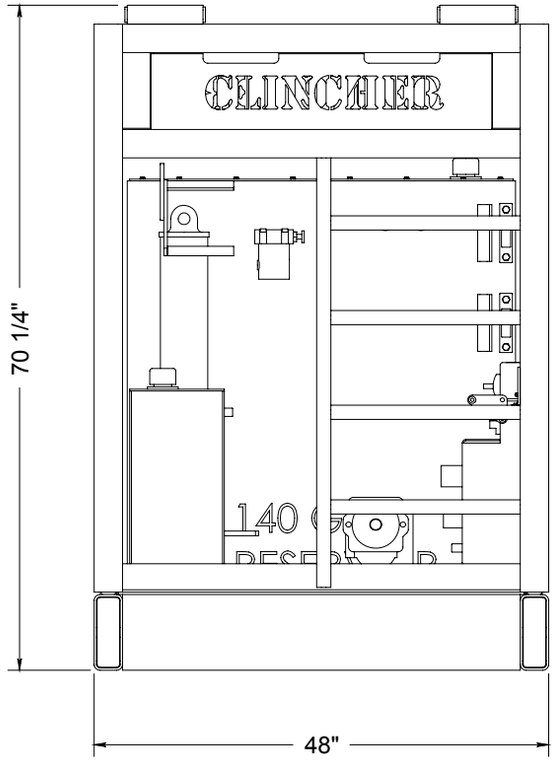

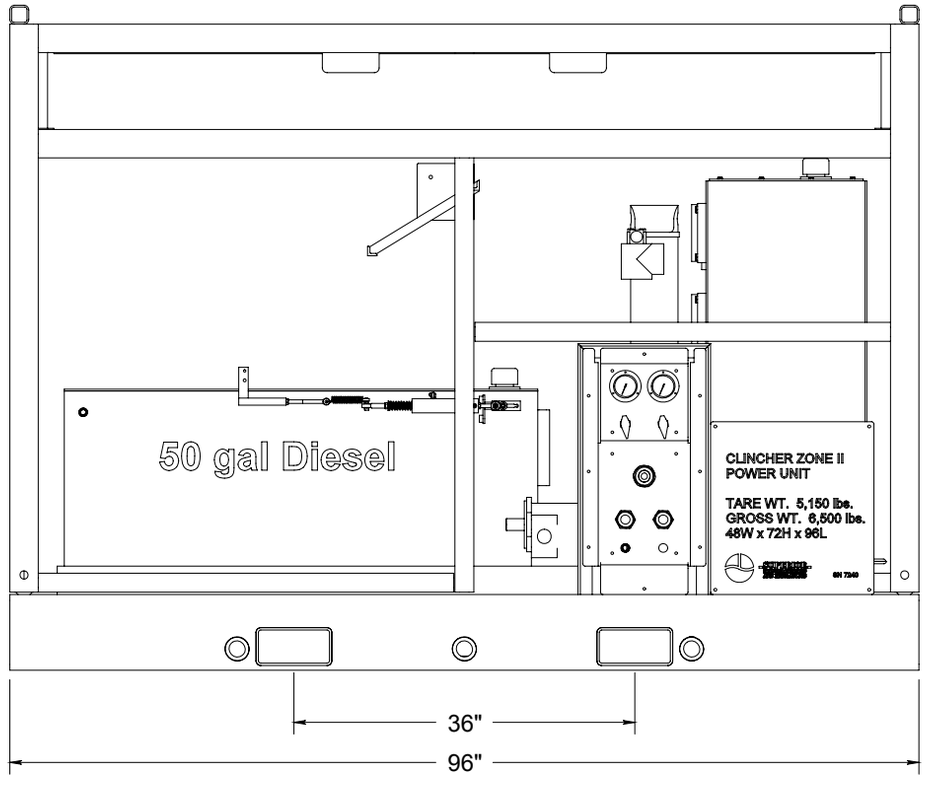

DIESEL ZONE II POWER UNIT ILLUSTRATION

Sheet 2

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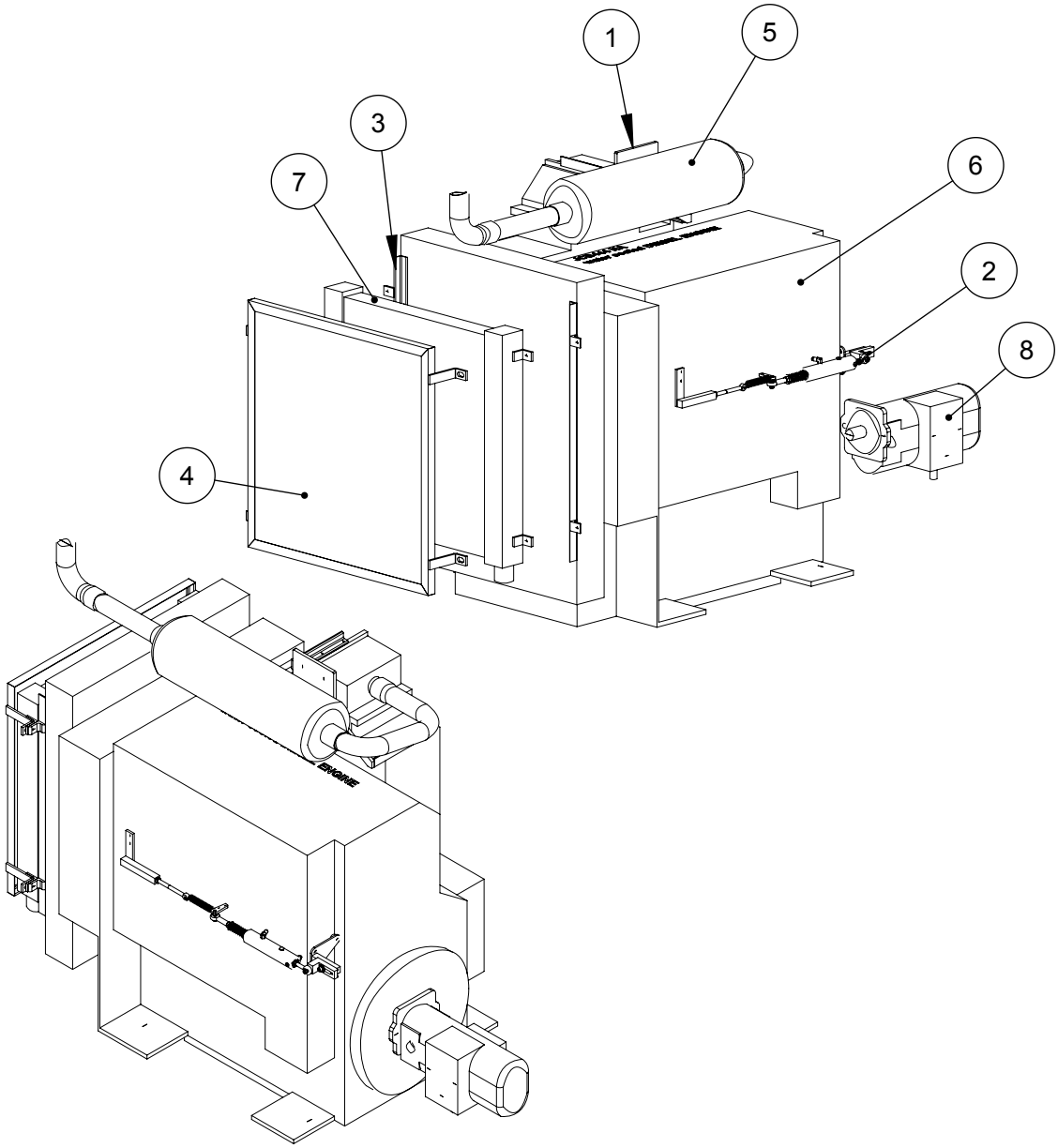
REV. #	LOG #	2/18/10 DATE

Item #	Qty.	Part Number	Part Name
1	1	DPU44015	EXHAUST MOUNTING BRACKET
2	1	DPU44020	DIESEL ENGINE THROTTLE ASSEMBLY
3	2	DPU44021	HYDRAULIC RESERVOIR COOLER MOUNT
4	1	DPU44022	HYDRAULIC RESERVOIR COOLER GUARD
5	1	DPU44026	EXHAUST ASSEMBLY
6	1	DPU44030	DIESEL ENGINE - 75 HP ATEX/EX/DNV
7	1	DPU44031	OIL COOLER
8	1	EPU75014	DOUBLE GEAR PUMP W/ HI-LOW VALVE - ATEX



DIESEL ENGINE ASSEMBLY

ASSEMBLY NO. DPU44025

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4225 HWY. 90 EAST
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REV. #	LOG #	DATE

Photo 1
DIESEL DRIVEN HYDRAULIC POWER UNIT

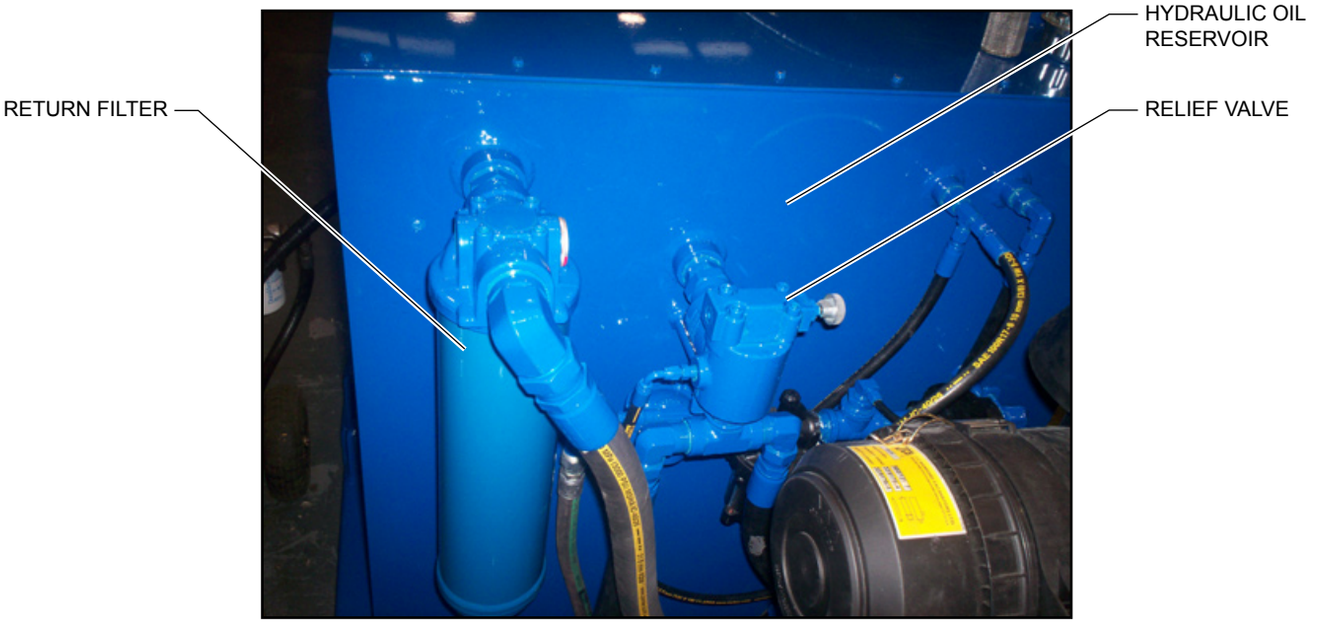


Photo 2
HYDRAULIC POWER UNIT COMPONENTS

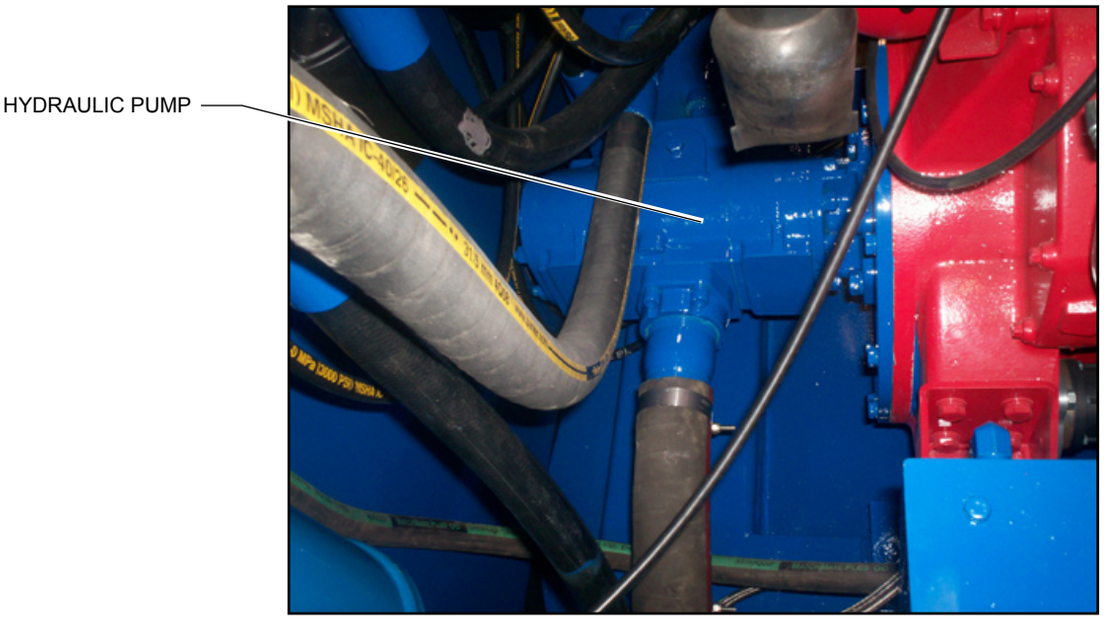


Photo 3
HYDRAULIC POWER UNIT COMPONENTS

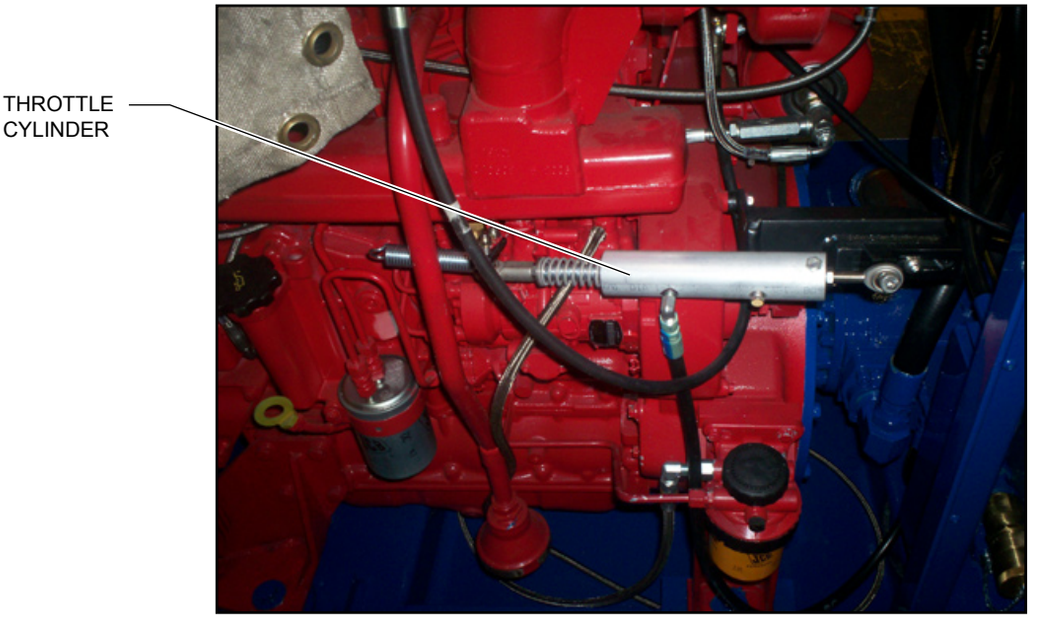


Photo 4
HYDRAULIC POWER UNIT COMPONENTS

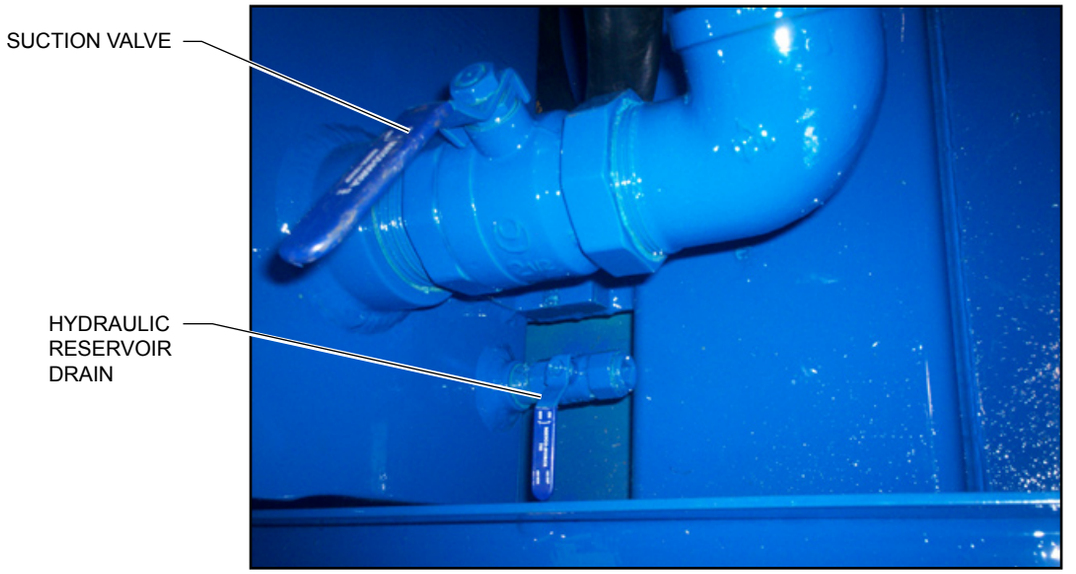


Photo 5
HYDRAULIC POWER UNIT COMPONENTS

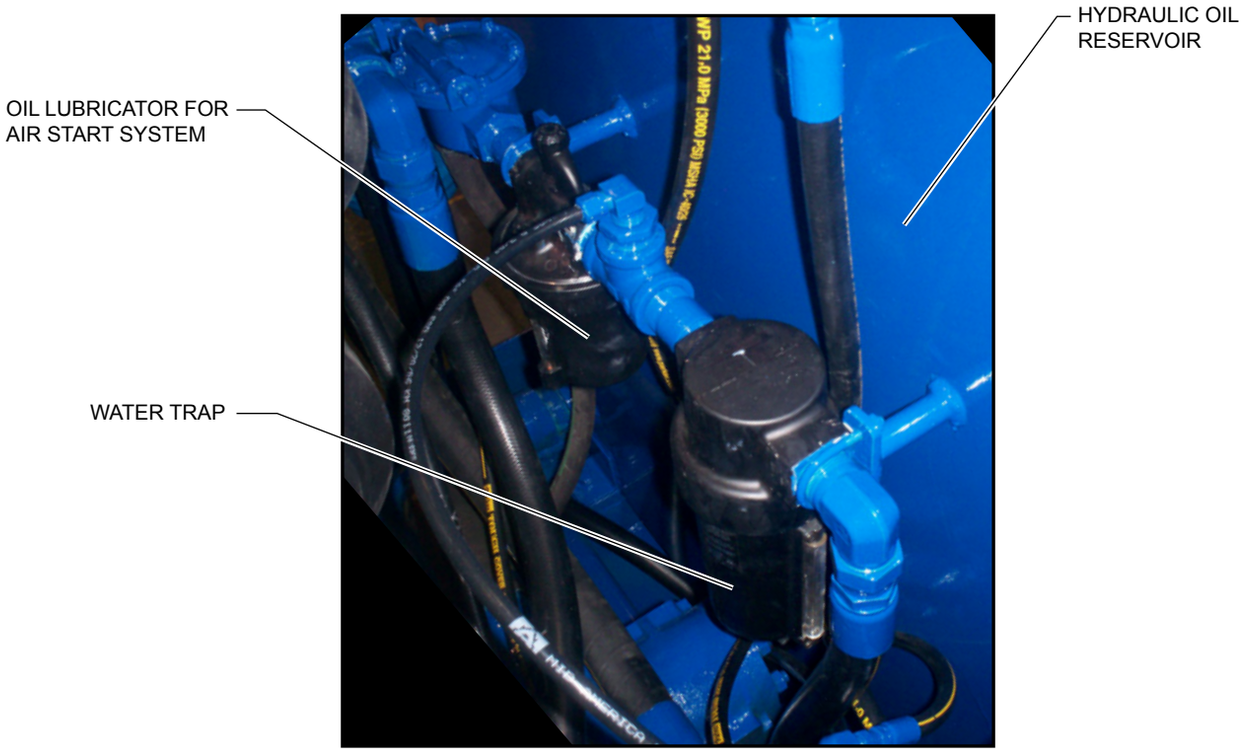


Photo 6
HYDRAULIC POWER UNIT COMPONENTS

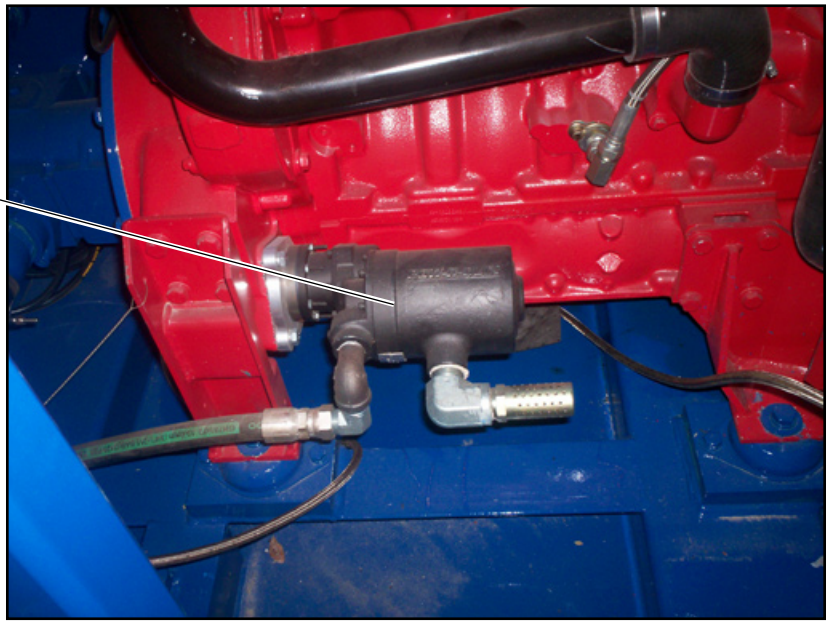


Photo 7
HYDRAULIC POWER UNIT COMPONENTS

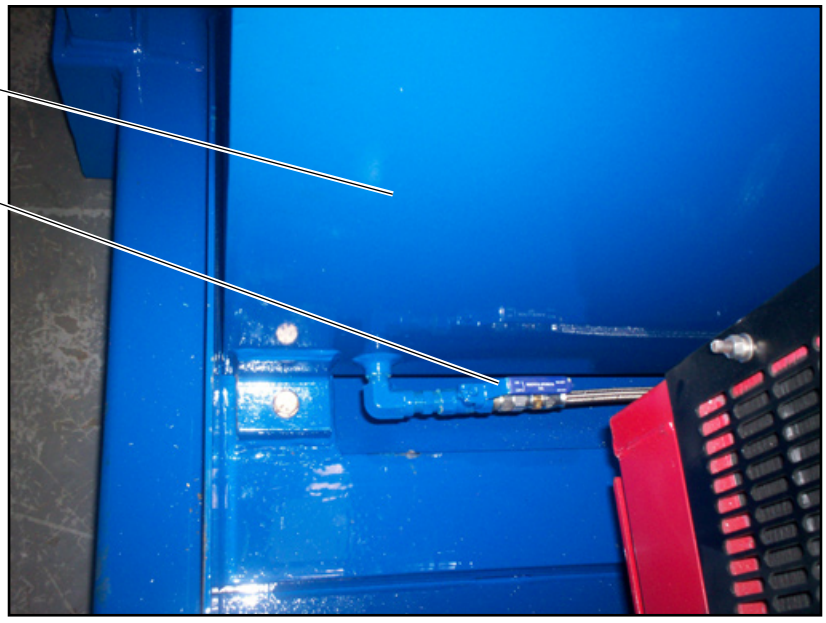
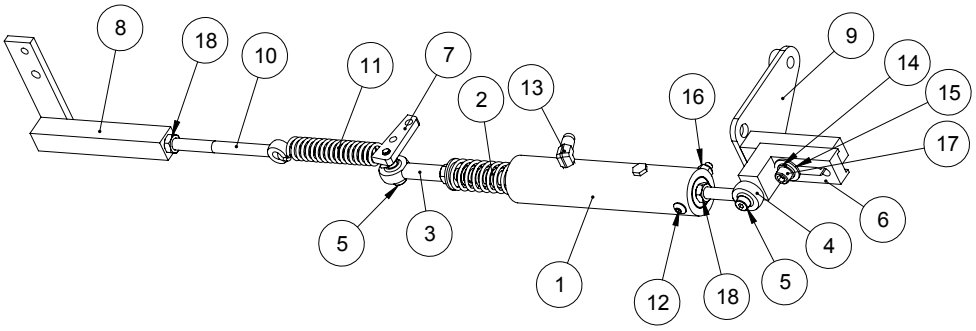


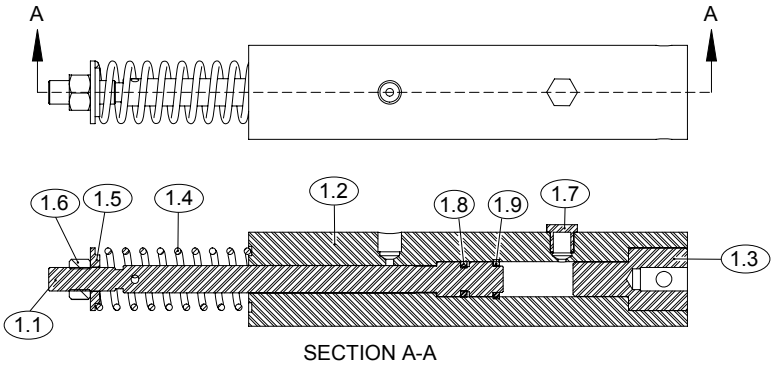
Photo 8
HYDRAULIC POWER UNIT COMPONENTS

Item #	Qty.	Part Number	Part Name
1	1	BJTC	BJ THROTTLE CYLINDER
2	1	BJTC-4	SPRING
3	1	BJTC-9SS	3/8"-24 FEMALE BALL JOINT
4	1	BJTC-10SS	3/8"-24 MALE BALL JOINT
5	2	BJTC-11SS	SHOULDER BOLT
6	1	BJTC-12	THROTTLE CYLINDER ADJUSTMENT BRACKET
7	1	DPU44017	THROTTLE MID MOUNT
8	1	DPU44018	THROTTLE SPRING TENSION MOUNT
9	1	DPU44019	THROTTLE END MOUNT
10	1	58229	EYEBOLT
11	1	71017	COMPRESSION SPRING
12	1	SBHCSCREW	0.25-20x2-HX-N
13	1	1588-L	90 1/8" MNPT X 1/4" MJIC
14	1	1734	5/16 LOCKWASHER SS
15	1	1735	5/16" FLATWASHER SS
16	1	1737	NYLOCK NUT 1/4"-20 S/S
17	1	1743	SHCS 5/16"-18 X 1 1/2" SS
18	2	BJTC137-B	JAM NUT 3/8"-16 SS



BJTC BJ THROTTLE CYLINDER

Item #	Qty.	Part Number	Part Name
1.1	1	BJTC-5	PISTON
1.2	1	BJTC-6	THROTTLE CYLINDER
1.3	1	BJTC-7	PLUG
1.4	1	SPRING	SPRING
1.5	1	SPRING CAP	SPRING CAP
1.6	1	269	HEX NUT 3/8"-24
1.7	1	1579-B	VENT
1.8	1	4-110	SEAL
1.9	1	4-111	SEAL



SECTION A-A

THROTTLE ASSEMBLY

ASSEMBLY NO. DPU44020

SUPERIOR Manufacturing & Hydraulics
4225 HWY. 90 EAST
BROUSSARD, LA 70518
(318) 837-8847

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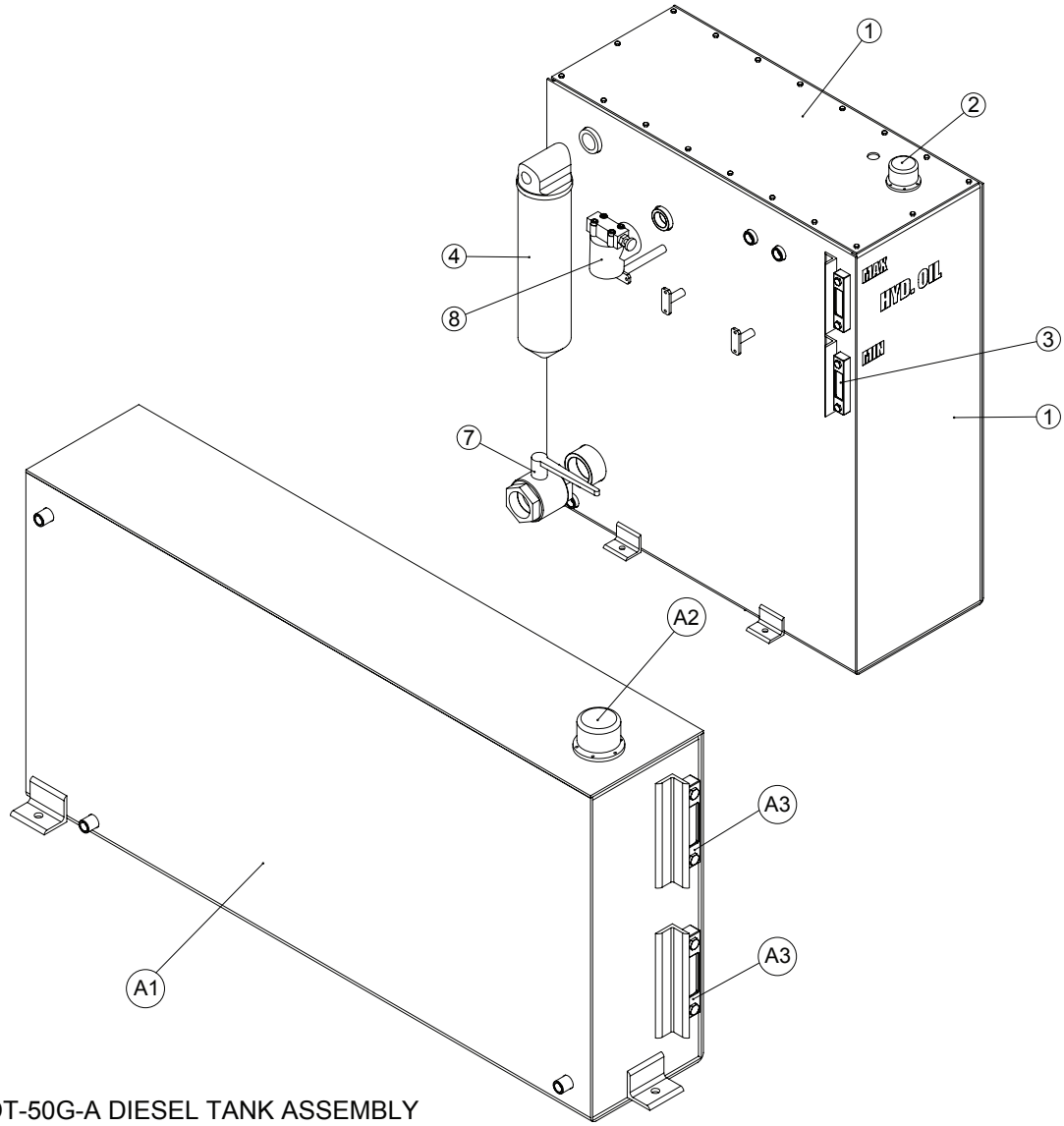
REV. #	LOG #	DATE

HRES-140A HYDRAULIC RESERVOIR TANK ASSEMBLY

Item #	Qty.	Part Number	Part Name
1	1	HRES-140	HYDRAULIC RESERVOIR WELDMENT- 140 GALLONS
2	1	PU4060-S30	STANDARD FILLER CAP
3	2	PU4060-S31	LEVEL/TEMP SIGHT GAUGE
4	1	DPU660-S1	RETURN FILTER
5	1	2.5 STRAINER	2 1/2" FLOW-EZY SUCTION STRAINER
6	18	1008-B3	1/4"-20 X 1/2" HHCS
7	1	1458	SUCTION BALL VALVE, 2 1/2" NPT
8	1	2070	DUMP VALVE 1 1/4"



DT-50G-A DIESEL TANK ASSEMBLY

Item #	Qty.	Part Number	Part Name
A1	1	DT-50G	DIESEL TANK WELDMENT - 50 GAL.
A2	1	PU4060-S30	STANDARD FILLER CAP
A3	2	PU4060-S31	LEVEL/TEMP SIGHT GAUGE

TANK ASSEMBLIES

ASSEMBLY NOs. DT-50G-A & HRES-140A

SUPERIOR Manufacturing & Hydraulics
4225 HWY. 90 EAST
BROUSSARD, LA 70518
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REV. #	LOG #	DATE

SECTION 8 COMPONENT TECHNICAL DATA

To request copy of Component Technical Data, please contact:

Superior Manufacturing & Hydraulics
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Broussard, LA 70518
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